

Letters to the Editor

Prevention of Infective Endocarditis From the Dentist's Perspective

Prevención de la endocarditis infecciosa desde la perspectiva del dentista

To the Editor,

Antibiotic prophylaxis for infective endocarditis (IE) prior to certain procedures is a particularly controversial issue for the dental community. On the basis of the information provided in an editorial recently published in the *Revista Española de Cardiología*¹ and the enormous perplexity generated by the proposal of the National Institute of Clinical Excellence (United Kingdom) that antibiotic prophylaxis for IE should in no case be administered prior to dental procedures, we would like to pose a few thoughts from the odontological point of view.

The indications for prophylaxis include those interventions that involve the perforation of the oral mucosa and exclude the injection of an anesthetic into an uninfected tissue.¹ However, the perforation of the mucosa in edentulous areas is associated with a very low incidence of bacteremia, whereas certain anesthetic techniques, such as intraligamentary injection, and apparently innocuous diagnostic approaches, such as periodontal probing, more frequently cause bacteremia.² Thus, the procedures that involve this risk should be redefined, stressing the critical area constituted by the gingival groove and the periodontal pockets.

One of the arguments used to justify the progressive limitation of the indications for prophylaxis is the development of bacteremia secondary to activities of daily living, such as chewing or tooth brushing; although the clinical impact of these bacteremias is still unknown, their prevalence may even be underestimated because it can be assumed that they are not severe enough to reach the detection threshold of conventional techniques. A recent systematic review demonstrated that the available scientific evidence regarding this aspect is very limited and that the accumulation of bacterial plaque and the degree of gingival inflammation are factors that determine the prevalence of bacteremias secondary to tooth brushing,³ a finding that corroborates the importance of oral hygiene as a prevention measure.

Antibiotic prophylaxis regimens are imported, and their efficacy could be influenced by geographic factors such as maps of antibiotic sensitivity. In this respect, it has been shown that, for example, clindamycin (the antibiotic of choice for patients who are allergic to penicillin¹) is ineffective in the prevention of bacteremia secondary to exodontias,⁴ although it may act in later phases of the development of IE.

The oral cavity is an ecological niche in which more than 700 bacterial species have been identified. Thus, local disinfection with an antiseptic solution prior to a dental procedure would be justified, in the same way that it is applied to the skin surface before an invasive intervention. The use of a chlorhexidine rinse prior to dental treatment was recommended by some expert committees until a few years ago,⁵ although, inexplicably, it has

not been included in the latest guidelines for IE prophylaxis. To date, it has not been demonstrated that the administration of chlorhexidine can prevent IE, but its application reduces the oral bacterial burden and, as a result, the prevalence and duration of bacteremias secondary to certain dental procedures,⁶ with the added advantage that its prescription would not have to be limited to patients at risk.

All in all, we fully agree on the need to draft consensus documents on IE and to implement them from a multidisciplinary perspective.¹ While it is true that some studies have demonstrated that dentists have considerable shortcomings with respect to their knowledge of IE prophylaxis regimens, over the past decade we have also observed marked disparities in the criteria applied by Spanish cardiologists.⁷

Javier Álvarez, Miguel Castro, Javier F. Feijoo, and Pedro Diz*

Grupo de Investigación en Odontología Médico-Quirúrgica (OMEQUI), Universidad de Santiago de Compostela, Santiago de Compostela, La Coruña, Spain

*Corresponding author:

E-mail address: pedro.diz@usc.es (P. Diz).

Available online 27 February 2013

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